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Citation: Rasmussen M-LH, Strøm M, Wohlfahrt J *et al.* Risk, treatment duration, and recurrence risk of postpartum affective disorder in women with no prior psychiatric history: A population-based cohort study. *PLoS Med.* 2017;14(9): e1002392

Declarative title: Women with a history of postpartum affective disorder at increased risk of recurrence in future pregnancies

What is already known on this topic

Postpartum depression (PPD) has an estimated prevalence of 10-15%¹ with associated negative maternal and child sequelae if left untreated. Following an episode of PPD, women are more likely to experience recurrent postpartum and non-postpartum depressive episodes, regardless of whether this was a first or subsequent depressive episode.² Postpartum depression prevalence estimates typically include women with and without pre-existing psychiatric diagnoses. Thus, there is a poor understanding of potential differences in recurrence risk and treatment duration between these two groups.

Methods of the study

Data were linked from Danish national registers to follow 457,317 primiparous women without previous psychiatric diagnoses delivering between 1996 and 2013.³ These women were followed up until 31 December 2014. The study aimed to estimate incidence of postpartum affective disorder (AD), duration of antidepressant or hospital treatment, and recurrence of depressive episodes. Postpartum AD was defined as either filling one or more scripts for antidepressants or attending hospital as an in- or outpatient due to PPD (identified by International Classification of Diseases (ICD) codes, versions 8 to 10) within six months of delivery. Log-linear binomial regression models were used to estimate relative risks of postpartum AD according to year of birth, parity and mother's age and Kaplan-Meier analysis estimated duration of antidepressant or hospital treatment. Recurrent depressive episodes during non-postpartum and subsequent postpartum periods were calculated per person-years and comparative rate ratios calculated using Poisson regression adjusted for year of birth and mother's age.

What this paper adds

- Risk for PPD in a population of women with no prior psychiatric history has not been extensively studied. Overall incidence of postpartum AD among women without a psychiatric history in this cohort was 0.6% of childbirths. Younger mothers had a greater risk (Relative Risk 1.8, 95% CI 1.6-2.0).
- 28% of women remained in treatment at one year and 5% at 4 years after initiation of treatment. This is similar to previous studies⁴ and perhaps unsurprising as advice often given is to continue antidepressants for at least six months after resolution of symptoms.

This study supports previous research demonstrating that women with a history of PPD are more likely to experience recurrent postpartum and non-postpartum depressive episodes. Women in the cohort with a postpartum AD episode prescribed antidepressants had a 27 times higher recurrence rate of postpartum AD following a second birth compared to those without a previous postpartum AD episode. For women with postpartum AD characterised by hospital contact, this was 46 times

higher, suggesting a possible relationship between severity of depression and risk of relapse.

Limitations

- There are a number of issues arising from the use of electronic health records within an observational study design including unmeasured confounding and misclassification bias from the use of antidepressants which could be used for indications other than depression.⁵
- The reported incidence possibly under-represents the magnitude of the problem, with antidepressant treatment usually reserved for moderate-severe depression and no information about women who presented to general practitioners with postpartum depressive symptoms.
- Reason for discontinuing antidepressants was unknown; could be due to resolution of symptoms or reluctance to continue treatment.

What next in research

Further research on predictors of risk in women with no prior psychiatric history, including those which predict prolonged treatment duration and increased recurrence risk would better enable stratification of risk and early support for mothers and their children. Moving from observational study design to an intervention may better elucidate risk factors and potential methods by which to prevent and/or reduce associated adverse outcomes, as demonstrated in a recent RCT of psychological therapy for postpartum depression.⁶

Do these results change your practices and why?

Yes. This study is a reminder to clinicians that women with no prior psychiatric history are still vulnerable to deterioration in mental state around the postpartum. It reinforces the value of in-depth enquiry about past perinatal mental health when assessing women in subsequent pregnancies, and highlights the importance of maintaining a universal approach to postpartum healthcare interventions delivered by a range of professionals such as health visitors and midwives to avoid missing mothers in need of support.⁷

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Competing interests: none declared

Subheading: Causes and risk factors

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